Orlando High-Speed Rail Case Study Summary

Orlando Mayor Buddy Dyer

"On January 28, 2010, President Barack Obama announced Orlando would be the jumping-off point for America's High-Speed Rail network. Weeks earlier, the City secured its first commuter rail system.

The two projects mean Orlando will soon be a center of America's 'Rail Renaissance.'

That Orlando is on the cusp of reaping the social, economic and environmental benefits from this dramatic expansion of public transit is a testament to the power of partnership.

After decades of failure, Orlando came together to engage Central Florida's numerous governments, businesses and civic organizations in a new kind of collaborative, regional approach to securing rail transit unlike any Florida had ever seen. This historic coalition would ultimately help Florida send the defining signal to the federal government that the state was serious about rail."

City and Region Definition. While the City of Orlando has a population of around 230,500 people, it is the center of a four-county metropolitan area with a population of 2.1 million people (comprising Orange, Seminole, Lake and Osceola counties in Florida).

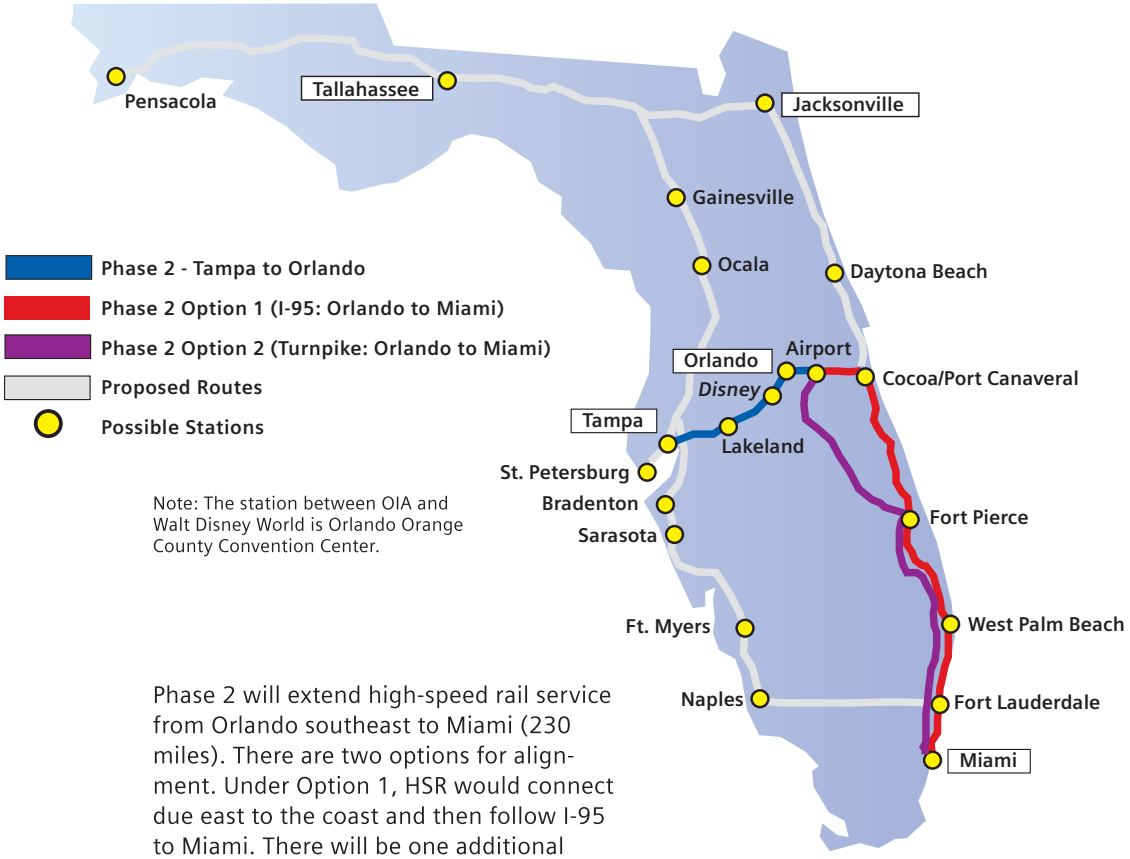
Economy. The Orlando area is a top tourist destination, most well known for its entertainment and theme park industries. The growth of entertainment, design, and creative professionals has also contributed to the rise of jobs in animation, motion simulation, and digital media. Diversification has also occurred with recent expansion of the medical-research, pharmaceutical, and healthcare sectors, supported by the growth of medical biosciences as a key core industry in Florida. Less familiar is the state's thriving $13.4 billion technology industry, which employs some 53,000 high-skilled workers. Florida's I-4 Technology Corridor, spurred by the growth of Lockheed Martin and similar firms that have clustered in Orlando, has nurtured the development of advanced military technology and space systems.

Metro Orlando provides more than 100,000 jobs in tourism. Due to the need to handle a large number of tourists, Orlando is also a center for passenger transportation logistics, a field that offers a multitude of good jobs for blue-collar workers, who often find limited opportunities in local economies with a high proportion of technical and professional services. The region would therefore benefit by providing the vital transit and feeder connections that will be essential to making HSR work.

Proposed High-Speed Rail Routes

Phase 1 of Florida's HSR system will link Orlando and Tampa. From Orlando, the line will extend southwestward along the I-4 median to downtown Tampa (85 miles), with one stop along the route at Lakeland (50 miles). Service from Tampa will include stops at three stations inside the Metro Orlando region—Orlando International Airport (OIA), Orlando Orange County Convention Center (OCCC), and Walt Disney World. The design speed for Phase 1 would be 168 mph, with operating speeds somewhat slower to accommodate station stops, acceleration, deceleration and operations in urban areas.

Figure 3. Proposed Initial HSR intercity passenger routes serving Orlando



Phase 2 will extend high-speed rail service from Orlando southeast to Miami (230 miles). There are two options for alignment. Under Option 1, HSR would connect due east to the coast and then follow I-95 to Miami. There will be one additional stop at Port Canaveral in addition to three stops at Fort Pierce, West Palm Beach and Fort Lauderdale. Option 2 will follow the coastal bypass route of the Florida Turnpike before connecting with I-95 at Port St. Lucie. This option calls for three stops on the way to Miami-Fort Pierce, West Palm Beach and Fort Lauderdale. In this study, we assumed routing under Option 1 to capture the "Space Coast" markets and strengthen the technology and defense connections between industries in Orlando and Port Canaveral. The design speed for Phase 1 would be 186 mph, with speeds constrained as in Phase 1 due to operational requirements. However, average operating speeds on the Orlando-Miami route would be somewhat higher because routes would be able to operate at higher speeds for longer distances between stops.

A second scenario was also developed for this study that examined the effects of operating HSR service at a design speed of 220 mph for both the Orlando-Tampa and Orlando-Miami routes. Economic impacts based on increased ridership associated with these slightly higher operating speeds are presented in this report, and provide comparable design speeds to alternative scenarios considered for each of the other three cities in this series of reports.

Ridership estimates vary, but are generally consistent at between 1.2 million and 1.9 million for the Orlando-Tampa market. Estimates for the Orlando-Miami route (Phase 2) range between 5.2 and 5.9 million. Independent estimates developed for this study indicate that demand for the Orlando-Tampa route range between 1.6 and 2.1 million, depending on the operating scenario. As shown in Table 6, estimates for Orlando-Miami service is expected to range between 4.2 and 4.9 million (for the 168/186 mph and 220 mph scenarios, respectively.)

Quantitative Assessment of Potential Economic Development Impacts

Types of Economic Impact. High-speed rail service will provide advantages to the City of Orlando and the entire metropolitan area as a result of enlarged visitor and tourism markets, reduced travel time and greater connectivity to outlying cities, and associated business productivity gains. The ability of high-speed rail services to expand labor markets and business travel opportunities also enables it to support the growth of the medical, pharmaceutical and motion picture support industries in downtown business districts and other office centers.

Table 6. Estimated Orlando-Based 2035 Annual Ridership for HSR Service (one-way trips)

Orlando to:	168 / 186 mph	220 mph
St. Petersburg	1,597,500	2,055,200
Miami	4,208,500	4,873,900
TOTAL	**5,806,000**	**6,929,100**

Ridership estimates are illustrative examples based on prior studies conducted for various HSR operating scenarios.

Local Impact (Visitor Spending and Station Area Development). A detailed study conducted for the Phase 1 Tampa-Orlando service estimates riders going to and from Orlando will have a profile of 60% Florida residents and 40% other visitors.[7] The study also estimated that roughly 35% of all riders will be using the service for access to or from the airport. It is reasonable to assume that train riders going to and from Orlando on the Phase 2 north-south line (connecting to Miami) will not be dramatically different from those profiles. Estimates of the total impact on visitor spending also require a combination of data from the ridership forecasts and data on average visitor spending profiles.[8] Based on this data, we calculate that HSR may bring an additional $255 million annually in visitor spending into the area, supporting hotel, restaurant, retail, and entertainment industry growth. It is based on the following travel market impacts:

Airport Connections

Out-of-state visitors who fly into Orlando International Airport (OIA) from the U.S. (outside of the Southeastern states) and from around the world and then ride HSR to their destinations. Leisure, out-of-state visitors spend an average of $940 per person during a multiple-day visit.

- An analysis conducted for this study indicates that they may generate around $600 million annually spending. Altogether, it is estimated that about one-fifth of that amount ($118 million per year) is new spending within the Orlando metropolitan area.

Out-of-Town Leisure Travelers

Out-of-state visitors who ride HSR into the Orlando area from within the Southeastern U.S. These may also include convention and group meeting visitors. These visitors spend an average of $737 per day during a multiple-day visit.

- An analysis conducted for this study indicates that they may generate around $140 million annually in spending. It is estimated that about some 40% of that amount ($56 million annually) is new spending within the area.

New Business Trips

Additional business trips into the Orlando area can be induced as a result of HSR service and the high tech linkages it will enable. Many of these are day trips, though some will be overnight. These visitors spend an average of $162 per trip.

- An analysis conducted for this study indicates that they may generate around $81 million annually in new spending in the area.

Commercial Development. High-speed rail service will also support the expansion of labor markets and service industry markets, as well as inter-industry business travel—all enabling additional office development associated with growth of target industries that are not visitor related.

- Announced development in the area of the OIA HSR station and Orlando Orange County Convention Center/ International Drive Activity Center HSR station alone may eventually total more than 50,000 jobs.
- More conservatively, short-term plans indicate that around 10,000 jobs are likely to be supported by the addition of the HSR service at those locations.

[7]Florida High-Speed Rail Ridership and Revenue Study,— Supplemental Details, 2002.
[8]Orlando/Orange County Convention and Visitors Bureau, data for 2007.

Table 7. Estimated Annual Economic Impacts of Orlando-Based HSR Service in 2035 (2009 $)

Measure	Unit	168 / 186 mph	220 mph
2035 Employment	Jobs	19,935	27,453.0
2035 Output (Sales)	$m per year	$2,128.1	$2,942.4
2035 Value-Added (GRP)	$m per year	$1,230.7	$1,706.1
2035 Wages	$m per year	$ 833.5	$1,155.8

These estimates of the potential economic impact are meant to be interpreted as potential impacts dependent on: (a) Full implementation of the proposed HSR system, (b) A metropolitan economy that remains healthy and continues to grow over the next twenty years, and (c) Supportive public policies and infrastructure investments to allow the benefits of HSR to be realized, and the projected additional business development to occur.

Regional Impact. In addition to the direct growth of business activity supported by visitor spending, and the direct attraction of development around new HSR stations, the proposed rail service will have broader regional impacts on travel time and cost savings for train riders, as well as some time savings resulting from reduced vehicle congestion. The proposed service will also provide regional productivity benefits in terms of economies of scale from broader tourism markets and linkages to partner firms in the medical equipment, pharmaceutical, aerospace and motion picture industries. These impacts, in addition to net expansion of visitor spending and office market attraction, will also lead to further "indirect" growth among suppliers to the growth businesses and "induced" growth supported by the additional consumer spending of worker wages.

The total potential long-term economic impact of proposed high-speed rail service will grow over time as rail service is fully implemented and the savings in travel time, expense and congestion reduction are realized. It will ultimately also depend on travel speeds and schedules. The current plan is for high-speed (220 mph peak) service between Orlando and Miami, but medium-speed (168 mph peak) service between Orlando and Tampa. This study additionally considered an alternative scenario in which the Orlando to Tampa section is also upgraded to the higher speed service.

- Depending on the scenario, the estimated economic impact potential by 2035 is $2.1 to $2.9 billion annually in additional business sales, which includes $1.2 to $1.7 billion per year in value-added (GRP).
- Of that value added, roughly $850 million to $1.2 billion per year is worker wages, supporting an additional 20,000 to 27,500 jobs.
- The impact will grow over time, so it will be expected to be less than this amount in earlier years, and potentially more in later years. It is also important to note that these different impact measures cannot be added because they are all alternative ways of measuring the same economic growth.